In the Claims:

1. (Currently amended) A light-emitting semiconductor component comprising a monolithically produced sequence of semiconductor layers ~~(2)~~, wherein an area of n-doped semiconductor layers ~~(3)~~ and an area of p-doped semiconductor layers ~~(4)~~ follow one another and a first pn junction ~~(5a, 5b)~~ is formed between the n-doped areas and p-doped areas ~~(3, 4)~~, wherein the first pn junction ~~(5a, 5b)~~ is subdivided into a light-emitting section ~~(7)~~ and a protective-diode section ~~(8)~~ by an insulating section, ~~(6), characterized in that~~

wherein the insulating section ~~(6)~~ electrically insulates the light-emitting section ~~(7)~~ and the protective-diode section ~~(8)~~ from one another in the area of the p-doped semiconductor layers ~~(4)~~,

wherein the area of the p-doped semiconductor layers ~~(4)~~ is provided in the protective-diode section ~~(8)~~ on the side facing away from the first pn junction ~~(5b)~~ with an n-doped semiconductor layer ~~(9)~~ which forms a second pn junction ~~(10)~~ with the area of p-doped semiconductor layers ~~(4)~~ in the protective-diode section ~~(8)~~ and is electrically conductively connected to the area of p-doped semiconductor layers ~~(4)~~ in the light-emitting section ~~(7)~~, and

wherein the first pn junction ~~(5a, 5b)~~ has a larger area in the protective-diode section ~~(8)~~ than in the light-emitting section ~~(7)~~.

2. (Currently amended) The light-emitting semiconductor component as claimed in claim 1, ~~characterized in that~~ wherein the area of the first pn junction ~~(5a, 5b)~~ is larger in the protective-diode section ~~(8)~~ than in the light-emitting section ~~(7)~~ by at least a factor of 100.

3. (Currently amended) The light-emitting semiconductor component as claimed in claim 1, ~~or 2, characterized in that~~ wherein the sequence of semiconductor layers ~~(2)~~ is applied to a semiconductor substrate ~~(1)~~.

4. (Currently amended) The light-emitting semiconductor component as claimed in claim 3, ~~characterized in that~~ further comprising a first contact metallization ~~(11) is~~ applied to a side of the semiconductor substrate (1) facing away from the sequence of semiconductor layers, ~~(2)~~ and a second contact metallization ~~(12) is~~ applied to part-areas of a surface of the sequence of semiconductor layers ~~(2)~~ opposite to the semiconductor substrate ~~(1)~~.

5. (Currently amended) The light-emitting semiconductor component as claimed in claim 1, wherein ~~one of the preceding claims, characterized in that~~ the area of n-doped semiconductor layers ~~(3)~~ is only partially ~~not~~ interrupted by the insulating section or is not interrupted at all ~~(6) at least in parts~~.

6. (Currently amended) The light-emitting semiconductor component as claimed in claim 3, wherein ~~or as claimed in one of claims 4 or 5, with reference to claim 3, characterized in that~~ the insulating section ~~(6)~~ extends from a surface of the sequence of semiconductor layers ~~(2)~~ opposite to the semiconductor substrate ~~(1)~~ into the area of n-doped layers ~~(3)~~.

7. (Currently amended) The light-emitting semiconductor component as claimed in claim 1, wherein ~~one of the preceding claims, characterized in that~~ the light-emitting section ~~(7)~~ is formed by a vertical cavity surface emitting laser (VCSEL).

8. (Currently amended) The light-emitting semiconductor component as claimed in claim 7, ~~characterized in that~~ wherein the first pn junction ~~(5a, 5b)~~ is arranged between a first sequence of Bragg reflector layers and a second sequence of Bragg reflector layers, each of which has a multiplicity of layer pairs, and the two sequences of Bragg reflector layers form a laser resonator, one of the two sequences of the Bragg reflector layers being semitransparent for the laser radiation ~~(18)~~ generated in the pn junction ~~(5a)~~.

9. (Currently amended) The light-emitting semiconductor component as claimed in claim 8, ~~characterized in that~~ wherein in one of the two sequences of Bragg reflector layers, at least one current aperture ~~(14)~~ is provided for spatially limiting an operating current flowing through the first pn junction ~~(5a)~~ in the light-emitting section ~~(7)~~ during the operation of the vertical cavity surface emitting laser.

10. (Currently amended) The light-emitting semiconductor component as claimed in claim 4, wherein ~~or as claimed in one of claims 5 to 9, with reference to claim 4, characterized in that~~ the second contact metallization ~~(12)~~ partially covers the surface of the light-emitting section in such a manner that an uncovered area remains as light exit opening ~~(17)~~.

11. (Currently amended) The light-emitting semiconductor component as claimed in claim 1, wherein ~~one of the preceding claims, characterized in that~~ the insulating section ~~(6)~~ is constructed as trench ~~(19)~~.

12. (Currently amended) The light-emitting semiconductor component as claimed in claim 11, ~~characterized in that~~ wherein the light-emitting section ~~(7)~~ and the protective-diode section ~~(8)~~ have a mesa-shaped structure on the side of the trench ~~(19)~~.

13. (Currently amended) The light-emitting semiconductor component as claimed in claim 11, wherein ~~or 12, characterized in that~~ the trench ~~(19)~~ is bounded by areas which are provided with an insulating layer ~~(16)~~.

14. (Currently amended) The light-emitting semiconductor component as claimed in claim 13, ~~characterized in that~~ wherein the trench ~~(19)~~ is filled with a material from which the second contact metallization ~~(12)~~ is formed.

15. (Currently amended) The light-emitting semiconductor component as claimed in claim 1, wherein ~~one of claims 1 to 10, characterized in that~~ the insulating section ~~(6)~~ is formed by an implantation, diffusion or oxidation process.

16. (Currently amended) The light-emitting semiconductor component as claimed in claim 1, wherein ~~one of the preceding claims, characterized in that~~ n doping and p doping of the semiconductor layers are exchanged for one another.

17. (New) A light-emitting semiconductor component comprising a monolithically produced sequence of semiconductor layers, wherein an area of n-doped semiconductor layers and an area of p-doped semiconductor layers follow one another and a first pn junction is formed between the areas, wherein the first pn junction is subdivided into a light-emitting section and a protective-diode section by an insulating section,

wherein the insulating section electrically insulates the light-emitting section and the protective-diode section from one another in the area of the p-doped semiconductor layers,

wherein the area of the p-doped semiconductor layers is provided in the protective-diode section on the side facing away from the first pn junction with an n-doped semiconductor layer which forms a second pn junction with the area of p-doped semiconductor layers in the protective-diode section and is electrically conductively connected to the area of p-doped semiconductor layers in the light-emitting section, and

wherein the first pn junction in the area of the protective-diode section is short circuited.

18. (New) The light-emitting semiconductor component as claimed in claim 17,

wherein an electrically conductive layer is applied to a side edge of the sequence of semiconductor layers facing the protective-diode section and electrically connects the area of n-doped semiconductor layers and the area of p-doped semiconductor layers with one another.